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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Lieping Chen

Art Unit : 1644

Serial No. : 09/915,789

Examiner : Jessica H. Roark

Filed : July 26, 2001

Title : B7-H3 AND B7-H4, NOVEL IMMUNOREGULATORY MOLECULES

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

DECLARATION OF INVENTOR UNDER 37 C.F.R. § 1.131

I, the inventor, declare that:

1. I am the inventor of claims 1-3, 7-9, 32-33, and 53-58 of the above-captioned patent application, as well as the inventor of the subject matter related to these claims described therein.

2. Prior to September, 1999, I worked in the United States to complete the conception of the invention, as claimed in the application, and to reduce the invention to practice, as evidenced by the following:

A copy of a computer printout generated in my laboratory prior to September, 1999, is attached as Exhibit B. The computer printout shows a nucleic acid sequence derived from the nucleotide sequences of a series of overlapping cDNA clones. The nucleic acid sequence includes the nucleotide sequence encoding the full-length human B7-H4 polypeptide. The date of generation of the computer printout has been blocked out on all three pages of the computer printout but was before September, 1999.

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

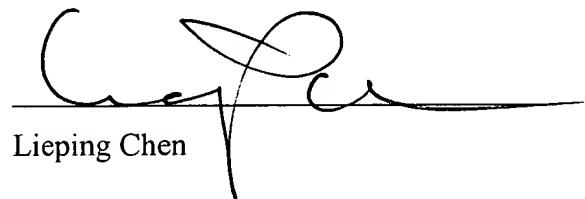
Date of Deposit_____
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Applicant : Lieping Chen
Serial No. : 09/915,789
Filed : July 26, 2001
Page : 2 of 2

Attorney's Docket No.: 07039-219001

3. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 3/25/04

A handwritten signature in black ink, appearing to read "Liping Chen". It consists of a stylized 'L' followed by 'iping' and 'chen' in a cursive script.

Liping Chen

B7.6DNA Translated Sequence

BamHI
HindIII
NotI
PvuI
SmaI

Page 1

Sequence Range: 1 to 1369

~~enzymes~~
~~now cutter~~

~~B6A~~

10

20

30

40

50

60

70

CAGCGGCAGCTCCACTCAGCCAGTACCCAGATAAGCTGGGAACCTTCGGGAGCTGCTTCCCCTGGGGC
GTCGCCGTCGAGGTAGTCGGCATGGGCTATGCGACCCCTGGAAAGGGTCCGTACCGAAGGGACCCCCG

Q R Q L H S A S T Q I R W E P S P A M A S L G >

TRANSLATION OF B7.6DNA [A]

~~Ecole B76~~

80

90

100

110

120

130

140

AGATCCTCTCTGGAGCATAATTAGCATCATCATTTCTGGCTGGAGCAATTGCACTCATCATGGCTT
TCTAGGAGAAGACCTCGTATTAATCGTAGTAGTAATAAGACOGACCTCGTTAACOTGAGTAGTAGAACGAA

Q I L F W S I I S I I I I L A G A I A L I I G P >

TRANSLATION OF B7.6DNA [A]

150

160

170

180

190

200

210

TGGTATTTCAAGGGAGACACTCCATCACAGTCACTACTGTCGCCTCAGCTGGGAACATTGGGGAGGATGGA
ACCATAAAGTCCCTGTGAGGTAGTGTCACTGACAGOGGGAGTCGACCCCTTGTAACCCCTCCTACCT

G I S G R H S I T V T T V A S A G N I G E D G >

TRANSLATION OF B7.6DNA [A]

220

230

240

250

260

270

280

ATCTGAGCTGCACTTTGAACCTGACATCAAACCTCTGATATCGTACATAATGGCTGAAGGAAGGTG
TAGGACTCGACGTGAAACTTGGACTGTAGTTGAAAGACTATAGCACTATGTTACCGACTTCCTCCTACAC

I L S C T F E P D I K L S D I V I Q W L K E G >

TRANSLATION OF B7.6DNA [A]

290

300

310

320

330

340

350

TTTTAGGCTTGGTCATGAGTTCAAAGAAGGCAAAGATGAGCTGTCGGAGCAGGATGAAATGTTAGGAG
AAAATCCGAACCAGGTACTCAAGTTCTTCCGTTCTACTCGACAGCCTCGTCTACTTTACAAGTCTCC

V L G L V H E F K E G K D E L S E Q D E M F R G >

TRANSLATION OF B7.6DNA [A]

360

370

380

390

400

410

420

CCGGACAGCACTGTTGCTGATCAAGTGAATGTTGGCAATGCCCTCTTGGGGCTGAAAAACGTGCAACTC
GGCCTGTCGTACAAACGACTAGTTCACTATCAACCGTTACGGAGAAACGCCACTTTGCACCGTGTAG

R T A V F A D Q V I V G N A S L R L K N V Q L >

TRANSLATION OF B7.6DNA [A]

430

440

450

460

470

480

490

ACAGATGCTGGCAACTACAAATGTTATATCATCACTCTAAAGGCAAGGGGAATGCTAACCTTGAGTATA
TGTCTACGACCGTGGATGTTACAATATAGTAGTGAAGATTCCGTTCCCTTACGATTGGAACACTCATAT

T D A G T Y K C Y I I T S K G K G N A N L E Y >

TRANSLATION OF B7.6DNA [A]

500

510

520

530

540

550

560

AAACTGGAGCCTTCAGCATGCCGGAACTGAATGTGGACTATAATGCCAGCTCAGAGACCTTGCCTGTGA
TTTACGCTCGGAAGTCGTACGGCTTCACTTACACCTGATATTACGGTCGAGTCCTGGAAACCCACACT

K T G A F S M P E V N V D Y N A S S E T L R C E >

TRANSLATION OF B7.6DNA [A]

570

580

590

600

610

620

630

GGCTCCCCGATGGTTCCCCCAGCCCACAGTGGCTGGGCATCCCAAGTTGACCAGGGAGCCAACTTCTCG
CCGAGGGGCTACCAAGGGGTGGTCACTGAGGTCAACTGGTCCCTCGGTGAAGAGC

A P R W F P Q P T V V W A S Q V D Q G A N F S >

TRANSLATION OF B7.6DNA [A]

640

650

660

670

680

690

700

MR2

GAAGTCTCAAATACCAGCTTGTGAACTCTGAGAATGTGACCAATGAGGTTGTCTGTGCTCTACA
 CTTAGAGGTTATGGTCGAAACTCGACTTGAGACTCTTACACTGGTACTTCCAACACAGACACGAGATGT
 E V S N T S F E L N S E N V T M K V V S V L Y>
 TRANSLATION OF B7.6DNA [A]

710 720 730 740 750 760 770
 ATGTTACGATCAACAAACACATACTCCTGTATGATTGAAAATGACATTGCCAAAGCAACAGGGATATCAA
 TACAAATGCTAGTTGTGTATGAGGACATACTAATTTACTGTAACGGTTTCGTTGTCCCCATAGTT
 N V T I N N T Y S C M I E N D I A K A T G D I K>
 TRANSLATION OF B7.6DNA [A]

B7.6DNA [A]

780 790 800 810 820 830 840
 AGTGACAGAACGGAGATCAAAGGGGGAGTCACCTACAGCTGCTAAACTGAAAGGCTTCTCTGTGTGTC
 TCACTGTCCTAGCCTCTAGTTTCCGCCCTCAGTGGATGTGACGGATTGAGTTTCCGAAAGAGACACAG
 V T E S E I K R S H L Q L L N S K A S L C V>
 TRANSLATION OF B7.6DNA [A]

850 860 870 880 890 900 910
 TCTTCTTTCTTGCCATCAGCTGGGACTTCTGCCCTCAGCCCTTACCTGATGCTAAAATAATGTGCCT
 AGAAGAAAGAACGGTAGTCGACCCGTGAAGACGGAGAGTCGGGAATGGACTACGATTTTATTACACGGA
 S S F F A I S W A L L P L S P Y L M L K * C A>
 TRANSLATION OF B7.6DNA [A]

920 930 940 950 960 970 980
 TGGCCACAAAAAGCATGAAAGTCATTGTTACAACAGGGATCTACAGAACTATTTCACCCACAGATATG
 ACCGGTGTTCGTCAGTTTCACTAAACATGTTGTCCCTAGATGTCCTGATAAAGTGGTGGTCTATAAC
 L A T K K H A K S L L Q Q G S T E L F H H Q I >
 TRANSLATION OF B7.6DNA [A]

BLD

990 1000 1010 1020 1030 1040 1050
 ACCTAGTTTATATTCTGGGAGGAATGAAATTCTATCTAGAAGTCTGGAGTGAGCAAACAAGAGCAAG
 TGGATCAAATATAAGACCCCTCTTACTTAAGTATAGATCTTCAGACCTCACTCGTTGTCTCGTT
 P S F I F L G G N E F I S R S L E * A N K S K>
 TRANSLATION OF B7.6DNA [A]

BLD

1060 1070 1080 1090 1100 1110 1120
 AAACAAAAAGAACCAAAAGCAGAAGGCTCAATATGAAACAAGATAATCTATCTCAAAGACATATTAG
 TTTGTTTTCTCGGTTTCGTCTCCGAGGTTACTTGTCTATTAGATAGAAGTTCTGTATAATC
 K Q K E A K S R R L Q Y E Q D K S I F K D I L>
 TRANSLATION OF B7.6DNA [A]

1130 1140 1150 1160 1170 1180 1190
 AAGTGGAAAATAATTCACTGTGAACTAGACAAGTGTGTTAAGAGTGTAAAGTAAATGCACGTGGAGAC
 TTCAACCCCTTTATTAAGTACACTTGATCTGTTCACACAATTCTCACTATTCACTTACGTGCACCTCTG
 E V G K I I H V N * T S V L R V I S K M H V E T>
 TRANSLATION OF B7.6DNA [A]

1200 1210 1220 1230 1240 1250 1260
 AAGTGCATCCCCAGATCTCAGGGACCTCCCCCTGCCCTGTACCTGGGAGTGAGAGGACAGGATAGTGCA
 TTCACTGAGGGTCTAGAGTCCCTGGAGGGGACGGACAGTGGACCCCTCACTCTCTGTCCCTATCACGT
 S A S P D L R D L P L P V T W G V R G Q D S A>
 TRANSLATION OF B7.6DNA [A]

1270 1280 1290 1300 1310 1320 1330
 TGTTCTTGTCTGTAAATTAGTATATGTGCTGTAATGTTGCTCTGAGGAAGCCCTGGAAAGTCTA
 ACAAGAAACAGAGACTTAAATCAATATACACGACATTACAACGAGACTCCCTGGGGACCTTCAAGAT
 C S L S L N P * L Y V L * C C S E E A P G K S>

TRANSLATION OF B7.6DNA [A]

1340 1350 1360
TCCCAACATATCCACATCTTATATTCCACAAATTAGCT
AGGGTTGTATAGGTGTAGAATATAAGGTGTTAATTCGA
I P T Y P H L I F H K L S X>
TRANSLATION OF B7.6DNA [A]